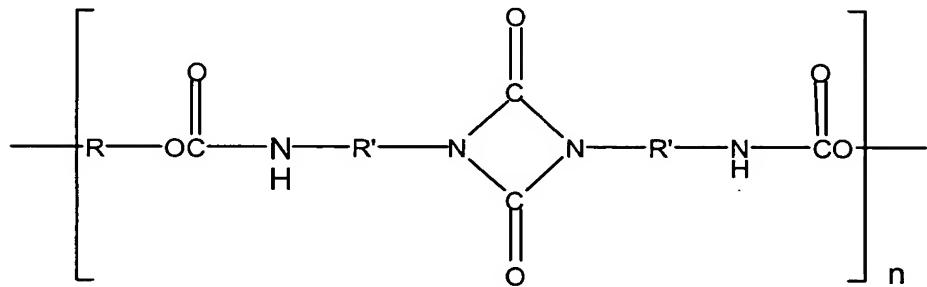


CLAIMS

What is claimed is:

1. An aqueous coating composition comprising a dispersion of an active
5 hydrogen-functional resin and a uretdione compound.

2. An aqueous coating composition according to claim 1, wherein
the uretdione compound comprises a structure of:



10 wherein R is a divalent alkylene radical, R' is a divalent alkylene, cycloalkylene, arylene, or alkylarylene radical, and n is an integer of 1 to about 50.

15 3. An aqueous coating composition according to claim 2, wherein n is a sufficiently large number so that the compound is a solid at room temperature.

4. An aqueous coating composition according to claim 1, wherein the uretdione compound is a uretdione of isophorone diisocyanate.

20 5. An aqueous coating composition according to claim 1, wherein the coating composition is electrodepositable.

6. An aqueous coating composition according to claim 1, wherein the coating composition is cathodically electrodeposable.

5 7. A method of making an aqueous dispersion coating, comprising steps of

combining a solid uretdione compound with a molten, water-dispersible resin to form a homogenous resin mixture;

salting the water-dispersible resin if necessary; and

10 dispersing the resin mixture in water .

8. A method according to claim 7, wherein the molten, water-dispersible resin has functionality reactive with the uretdione compound.

15 9. A method according to claim 7, wherein the coating composition contains a further water-dispersible resin having functionality reactive with the uretdione compound.

10. A method according to claim 7, wherein the water-dispersible resin 20 has quaternary groups.

11. A method of coating a substrate, comprising applying the coating composition of claim 1 to a substrate and

curing the applied coating composition to produce a cured coating layer on the substrate.

12. A method according to claim 11, wherein the coating composition is applied
5 to the substrate by electrodeposition.